TASWORD
64

THE WORD PROCESSOR

D64 ATTACHED
TO THIS PDF

A TASMAN SOFTWARE PROGRAM
FOR THE COMMODORE 64

TASWORD 64

Tasman Software Ltd
Springfield House
Hyde Terrace
Leeds LS2 9LN

Contents

The Command Keys (continued)

Getting Started with TASWORD

Learning to use TASWORD

Tasword is designed to be easy to use. We suggest that you learn to use Tasword by the following steps:

(1) Reading 'How Tasword Works' on pages 5 to 8 of this manual;

(2) Load Tasword as described on page 9;

(3) Type in a few lines of text paying attention to the features described in the 'How Tasword Works' section of this manual. Experiment with some of the command keys - they are all described on pages 12 to 26;

(4) Load the Tasword Tutor text file following the procedure described on page 11;

(5) Take your time working through Tasword Tutor and experiment as much as you like. Refer to the control key descriptions in the manual (pages 12 to 26) as you work through Tasword Tutor;

(6) You will now be sufficiently familiar with Tasword to use it to produce your own text files. As you continue to use Tasword you will discover which of the facilities are most useful to you and you will find that you remember the relevant control keys. Don't forget that the help pages are always there;

(7) Save Tasword, following the instructions on page 9, and use this tape as your working copy. Keep the original as your back-up copy.

The Δ and ▼ signs

The Δ and ▼ signs occur frequently both in this manual and in the Tasword help pages. The Δ sign represents the **CONTROL** key (marked **CTRL** on the keyboard) and the ▼ sign represents a **SHIFT** key.

Δ = **CONTROL**
▼ = **SHIFT**

These keys are always used in conjunction with some other key by holding either **SHIFT** or **CONTROL** down and pressing the other key while still holding the **SHIFT** or **CON-TROL** key down. For example:

Δ**W** means hold **CONTROL** down and press the **W** key
▼→ means hold a **SHIFT** key down and press the → key

How TASWORD Works

The Text File

Tasword operates on a text file which contains whatever you type on the keyboard. This text file can be up to 25,000 characters long. This is equivalent to approximately 300 lines of text. The length of a line in the text file is usually 80 characters long although this can be changed by altering the margin settings.

The Window

The television or monitor is a 'window' which shows 23 lines of the text file. Certain control keys move the window up or down the text file. Moving the window is called scrolling. Tasword can display either 40 or 80 columns on the screen at once. When Tasword is loaded it automatically goes into 80 column mode. To change into 40 column mode press **CTRL 0**. In 40 column mode the window now only displays 40 of the 80 columns but the window may be scrolled to the left or right allowing all the text file to be seen.

All commands relating to Tasword apply to both 40 and 80 column modes. The 40 column mode utilises the normal Commodore character set.

When using the Video output of the Commodore 64 to produce an image on a monitor the 80 column mode display is quite acceptable. Using the PAL output of the Commodore 64 to produce an image on a domestic television set may be less clear. If using a domestic television set then turning the colour off to leave a black and white image may improve the clarity. Also adjusting the brightness and contrast can improve the image. Changing the colours of the text and background in the 'Customise program option' can also influence the quality of the display. By bearing these points in mind the screen display can be adjusted to produce a good picture.

The Cursor

The cursor is a flashing square or bar which indicates where you are in the text file. The cursor can be moved around by using the **CRSR** keys on the bottom right hand side of the keyboard. Pressing **SHIFT** and the **CRSR** key reverses the direction of the movement of the cursor.

The Keyboard

Each time you press one of the letter keys on the keyboard a character corresponding to that key appears on the screen at the cursor position. To type a capital letter hold down **SHIFT** and press the required letter key. Some keys are marked with two characters. The lower character is the one normally obtained. By holding **SHIFT** down and pressing the key the upper character is obtained.

Auto Repeat

If pressure is kept on any key then after a slight delay the key action is repeated. This applies to both character keys and most command keys.

The Command Keys

A Tasword command key is a key which does not type a letter when pressed but instead manipulates the text file in some way. For example the cursor keys move the cursor around the text file. Another useful command key is the grey **f3** function key which displays the help page. The help page gives a brief description of each of the command keys and is reproduced below.

TASWORD 64 HELP PAGES

CURSOR CONTROL	**BLOCK COMMANDS**
Δ↑ start of text Δ* end of text	ΔV mark end block ΔB mark start block
Δ[start of line Δ] end of line	Δ@ cancel markers ΔC delete block
f1 scroll up f7 scroll down	ΔN copy block ΔM move block
Δf1 fast scroll up Δf7 fast scroll down	
Δ< word left Δ> word right	**PRINTER COMMANDS**
HOME top of display Δ0 40/80 columns	Δ6 put header ΔSPACE(u) form feed
	Δ7 put footer
FORMATTING COMMANDS	ΔT get header ΔY get footer
ΔQ move text left ΔE move text right	
ΔW centre line ΔU hard justify	**OTHER COMMANDS**
ΔK justify line ΔL unjustify line	ΔR find & replace ΔSPACE print chars
ΔJ justify para	Δ+ lower to caps Δ– caps to lower
SWITCHES	**PRINTER CONTROL CHARACTERS**
ΔP paging on/off ΔH insert on/off	(a) enlarged on (b) enlarged off
ΔG wordwrap on/off ΔF justify on/off	(c) condensed on (d) condensed off
	(e) underline on (f) underline off
TEXT FILE COMMANDS	(g) italics on (h) italics off
ΔRETURN for save/load/merge/print/etc	(i) emphasise on (j) emphasise off
	(k) double strike on (l) double strike off
TAB AND MARGIN COMMANDS	(m) elite on (n) elite off
LEFT ARROW go to next tab stop to right	(o) proportional on (p) proportional off
ΔLEFT ARROW set/reset tab stop	(q) double width on (r) double width off
ΔZ clear tab stops ΔX reset tab stops	(s) reverse on (t) reverse off
ΔA set left margin ΔD set right margin	
ΔS reset margins	**EXTRA CHARACTERS**
	à:A â:B á:C ä:D é:E è:F ë:G ê:H î:I
	ï:J ì:K ö:L ò:M ô:N û:O ù:P p̃:Q ç:R
DELETE & INSERT	π:S α:T ←:U ↓:V →:W μ:X δ:Y λ:Z
DEL delete char ΔDEL delete word	
ΔCLR delete line ▼CLR delete char	**Δ = CTRL f3** for more help **▼ = SHIFT**
ΔI insert line ▼INST insert space	Press **RETURN** to get back to text file

Many of the command keys are obtained by holding down the control **CTRL** key and pressing the relevant key. These commands are prefixed by upward pointing triangles on the help page.

Some of the cursor command keys actions similarly require the **SHIFT** key to be held down while the relevant key is pressed. These commands are prefixed by downwards pointing triangles.

Note that **SHIFT INST** means hold down the **SHIFT** key and press the key marked **INST DEL**. Also **CTRL [** means hold down the **CTRL** key and press the key marked with a '**[**'

A full description of the action of all the command keys is given on pages 12 to 26.

When the help page is shown press **RETURN** to return to the text file.

Word Wrapping

Unless overridden by the Δ**G** command key (see page 16) Tasword word-wraps automatically at the end of each line. This means that if your last word on a line does not fit onto the line then the whole word is transferred to the beginning of the next line.The only time you will normally use the **RETURN** key when typing in text is when you want to start a new paragraph.You will soon find that when you are typing in text you will only occasionally look at the screen - Tasword keeps the text neat and leaves you free to concentrate on the keyboard.

Justification

As well as word-wrapping when a word overflows the end of a line Tasword automatically justifies the line that has just been finished. The words in the line are spaced out by inserting spaces between them so that the text spreads across the screen. This gives the text a neat appearance with no jagged margin on the right hand side.

The automatic justification can be turned off using the Δ**F** command key (page 16). This results in the typed text having a 'ragged right' appearance that may be, according to personal preference, more appropriate for the task in hand.

It is straightforward to change text that has already been typed from right justified to ragged-right or vice versa. Simply use the Δ**F** command key to turn right justification on or off and then use the Δ**J** command key (page 15) to rejustify the desired paragraphs.

Tall Cursor

When you type the last character in a line Tasword moves the cursor to the beginning of the next line. The cursor becomes taller. If you type a character when the cursor is tall Tasword will assume that the character is part of the last word on the previous line and word-wrap. If the word on the previous line is finished you must type a space - as you would have done anyway if you had not looked at the screen - before typing the next word.

If the last character on a line is a punctuation mark Tasword will not word-wrap when you begin the next line even if you type a character when the cursor is tall. It will ignore the first two spaces that you type so that you do not indent a line accidentally.

Good Typing Practice

Help Tasword help you by following the two simple rules of good typing practice:

(1) Always type at least one space after the full stop at the end of a sentence or after any other punctuation mark;

(2) Always begin a new paragraph by indenting (typing spaces at the beginning of), the first line or by leaving a blank line between paragraphs, or by doing both.

The Reference Sections

The remainder of this manual is for reference. You do not have to read it all before you can begin to use the program. The most commonly utilised facilities in the program are readily used by referring to the help page and using on-screen prompts at various points.

Four main parts follow. The first is concerned with loading and running the program and saving and loading the text files you create. The second part describes all the command key actions, grouped by type. Printing, and the format of printed text files, is described in the third part. The fourth part describes how you can customise the program to suit your own applications and personal preference. Three appendices cover certain points concerning printers.

Loading and Running Tasword

To load Tasword position the disc in the disc drive or cassette in the tape unit ensuring that it is fully rewound.

To load from tape type

<div align="center">

LOAD "TASWORD",1,1

</div>

and press **RETURN**. The program will now automatically load and run. To load from disc type

<div align="center">

LOAD "TASWORD",8,1

</div>

and press **RETURN**. The program will now automatically load and run. To load Tasword Tutor follow the instructions on page 11.

Saving Tasword

To make a back-up or customised copy of the Tasword program press **CTRL RETURN**. A list of options will appear as shown on page 26. Put a blank disc in the disc drive or blank cassette in the tape deck making sure it is rewound. Press **T** to save the Tasword program and **RETURN** to confirm your choice. If copying to cassette then you will have to press **RECORD** & **PLAY** when the save Tasword option is selected.

The storage device that you wish to use can be changed by altering the storage device number in the Customise program option. This allows you to work with tape, disc, or multiple disc drives.

Saving and Loading Text Files

Saving

You can save text you have typed onto disc or tape as a text file. Press **CTRL RETURN** whilst Tasword is running and the list of options shown on page 26 will appear on the screen. Choose the '`Save text file`' option by pressing **S** and then **RETURN** to confirm your choice. Tasword will then ask you to enter a file name which can be up to 16 characters in length. Press **RETURN** after you have typed the file name. If you are using a disc drive as a storage device then the disc directory is displayed before you enter the file name. (See Appendix four for details on using disc drives).

Loading

LOADING A TEXT FILE WILL CLEAR ALL THE TEXT THAT IS CURRENTLY IN THE TASWORD TEXT FILE.

To load a text file from tape or disc use the **CTRL RETURN** command to obtain the main menu as shown on page 26. Then press **L** to select the '`Load text file`' option. Tasword will ask you to type the name of the text file you wish to load. Type the name of the text file and press **RETURN**.

If you are using a disc drive as your storage device then the disc directory will be displayed before you enter the file name. (See Appendix four for more details on using disc drives).

Merging

Merging is loading a text file from disc and putting it in the Tasword text file after any text that is already there. To do this use the Δ**RETURN** control key and then press the **M** key to select the 'Merge text file' option. Tasword will then prompt you to follow the same procedure as described in 'loading' on page 10. Note that you can only merge two text files providing their combined length does not exceed the 25,000 character file space available.

TASWORD 64 Tutor

Tasword 64 Tutor is a text file which helps you familiarise yourself with the use of the command keys.

To load the Tasword 64 Tutor use the **CTRL RETURN** command to obtain the main menu. Press **L** to select the 'Load text file' option and **RETURN** to confirm. Tasword will ask you to type the name of the text file you wish to load. Type 'tutor' and press **RETURN**.

The Command Keys

The Δ sign indicates that the Control **[CTRL]** key must be held down while the relevant key is pressed. The ▼ symbol means that the **[SHIFT]** key must be held down. These symbols are also used on the help page.

Help Commands

f3 show help page

The help page is displayed when the grey **f3** function key is pressed. This is located on the right hand side of the keyboard. There are three help pages altogether and you can get to the next one by pressing **f3** again. To return to the text file press **RETURN**.

Δ3 get help

When **CTRL 3** is pressed the printer control characters and extra print characters part of the help page is copied into the start of the text file overwriting any text already there.

Δ4 put help

When **CTRL 4** is pressed the top section of the text file is copied into the printer control characters and extra print characters section of the help page. The **CTRL 3** and **CTRL 4** commands allow a portion of the help page to be edited to suit your particular requirements. This allows you to change the function of the printer control characters and keep the help page comments compatible with your particular printer character functions. Selecting the Save Tasword option from the main menu will incorporate the modified help page into your customised copy.

Cursor Movement

RETURN

This key moves the cursor to the left margin at the beginning of the next line. If insert mode is On (see page 18) a new line is also inserted.

Arrows - move cursor

The arrow keys on the bottom right hand part of the keyboard are used to move the cursor to any required position on the screen. Keeping an arrow key depresssed causes auto-repeat to be implemented and this is a useful way of moving the cursor quickly towards some desired position on the screen.

The **SHIFT** left arrow key may be used to move the cursor to the left of the left margin if the left margin is set to some other position than column one. The right arrow can move the cursor to the right of the right margin if the latter is set to less than column 80.

Δ↑ start of text file

This command key is used to jump back to the beginning of the text file.

Δ* end of text

When this key is pressed Tasword finds and displays the end of the text file.

Δ[start of line

This command key moves the cursor to the start of the current line. This is the left margin setting.

Δ] end of line

This key moves the cursor to the end of the current line. This is taken to be the right margin setting.

This command along with **CTRL [** is particularly useful when reviewing text in the 40 column mode.

Cursor Movement (continued)

f7 scroll down

The **f7** command scrolls the display down one line of the text file.

f1 scroll up

This command scrolls the display up one line of the text file.

Δf7 fast scroll down

The **CTRL f7** command forces Tasword to scroll down one screenful of lines. This is a useful way of scrolling quickly through the text.

Δf1 fast scroll up

Tasword scrolls up a screenful of text when this key is pressed.

Δ> word right

This key moves the cursor to the beginning of the next word to the right. If there is no word to the right of the cursor then it moves to the beginning of the next line.

Δ < word left

This key moves the cursor to the end of the next word to the left of the cursor.

HOME cursor to top of screen

The **HOME** key moves the cursor to the top left character position of the current screen.

Formatting Commands

ΔQ move text left

This moves the text under and left of the cursor left one character position. There is no affect if there is already a character at the left margin. Text within margins is not affected by this command and if the cursor is inside a margin no text is moved.

ΔW centre line

This key centres the text on the line containing the cursor between the margins. It is useful for headings. Text inside margins is not moved and there is no action if the cursor is inside a margin.

ΔE move text right

This key moves the text under and to the right of the cursor right one character position. There is no action if there is a character on the right margin. Text within margins is not moved and there is no action if the cursor is inside a margin.

ΔJ rejustify paragraph

This key reforms the text from the line containing the cursor to the end of the paragraph. The end of the paragraph is detected by the occurrence of a blank or an indented line. The ΔJ key is very useful for tidying up text in which you have made insertions and deletions.

Only the text within the margins is reformed and the reforming is to the current margin positions. To reform a paragraph to new margin positions use the hard rejustify command ΔU.

The ΔJ command will right justify the text if Right Justify is on and will leave the text 'ragged right' if Right Justify is off. The ΔJ command can therefore be used to change the format of a paragraph from right justified to ragged right and vice versa.

ΔK justify line

The line that the cursor is on is right justified by this key.

ΔL unjustify line

The line that the cursor is on is unjustified by deleting any surplus spaces between words.

Formatting Commands (Continued)

∆**U hard rejustify**

The hard rejustify command reforms the entire paragraph containing the cursor to the current margin positions. The hard rejustify command is useful for reforming paragraphs after the margin settings have been changed. The paragraph is forced to lie within the new margin positions.

During hard rejustification all text both inside the new and old margin settings is considered to be part of the current paragraph. Annotations within margins will be incorporated into the new paragraph and therefore should be deleted before hard rejustification.

Hard rejustification only detects the start and end of the current paragraph by the occurrence of blank lines. Ensure that there is a blank line at both the start and the end of a paragraph before executing the hard rejustify command.

∆**F Right Justify On/Off**

This command key turns the automatic right justification Off or On. The 'R/J' message at the bottom of the screen tells you the current status. Justification is described on page 7. When justification is On the text typed will be reformed at the end of each line to the right margin (as in most of this manual). When right justification is Off the text has the 'ragged right' appearance of this paragraph.

∆**G Word Wrap On/Off**

This command is used to turn the automatic word-wrap Off or On. The 'W/W' message at the bottom of the screen indicates whether the word-wrap is On or Off. Word-wrapping is described on page 7.

Delete Commands

DEL delete character to left of cursor

The **DEL** key deletes the character to the left of the cursor and moves the remainder of the line left one character position. Note that characters which are mis-typed can be typed over once the cursor has been moved to the correct position and you do not have to use the **DEL** key to do this. The delete key is useful for correcting mistakes as they are made and for removing unwanted characters.

▼CLR delete character under cursor

This command is similar to the **DEL** command described above except that it is the character under the cursor that is deleted.

∆DEL delete word

The **CTRL DEL** key deletes the entire word over which the cursor is positioned. The remainder of the line is moved left to fill the gap created by the deletion of the word.

∆CLR delete line

This key deletes the line that the cursor is on. All subsequent lines are moved up.

∆C delete block

This command deletes a marked block of text. The block commands are described on page 21.

Insertion Commands

Δl insert line or words

This is used to insert blank lines or space for extra words.

To insert a blank line, position the cursor at the beginning of the line following the line to be inserted. Press **CTRL l** to insert the blank line. (New lines are inserted automatically when insert mode is on - see below).

To insert additional words between existing words position the cursor on the space between words. Pressing **CTRL l** then throws the words to the right of the cursor onto a new line. The additional text can then be typed in.

The insertion procedures will usually destroy the justification of the paragraph. The justification can be recovered by using the **CTRL J** key.

ΔH insert mode On/Off

When insert mode is turned On Tasword creates a new blank line for you to type on whenever a line of text is completed or **RETURN** is pressed. Turning insert mode On is useful when you want to type some lines of text in the middle of some existing text. The 'Insert' message at the bottom of the screen shows the current state of the insert mode.

▼INST insert space

To insert a blank character space in a line press **SHIFT INST** and the blank character will be inserted. If the line is already full then a blank character will not be inserted. In this case use **CTRL l** to create some space.

Margin Commands

∆**A set left margin**

When this key is pressed the left margin is set to immediately before the current cursor position. The margin is indicated by a line instead of the dotted bar on the penultimate line of the screen. The use of margins is described below. The left arrow may be used to move the cursor into the left margin either to type text or to reset the margin.

∆**S clear margins**

This clears the margins to the default positions of 1 and 80.

∆**D set right margin**

This key sets the right margin to immediately after the cursor position. The margin position is indicated by a line instead of a dotted bar near the bottom of the screen.

When margins are set the text that is typed will normally be put only between the two margins. Word-wrap and justification take place as though the margin positions represent the edges of the screen.

Margins are useful for automatically indenting part of your text. Paragraphs can be highlighted by having different margin settings, or a list of paragraphs can be typed and numbering and other annotations can be put within the margins.

The cursor moving arrows can be used to move the cursor into the margin to set new margin positions or to type text within a margin. The ∆**Q**, ∆**W**, and ∆**E** text moving and centering commands do not affect the text inside the margins and do not work at all when the cursor is within a margin. The ∆**I** text insertion command does not operate inside margins except when the cursor is in column 1. The ∆**J** command rejustifies just the text that is between the left and right margin. The ∆**U** hard rejustify command may be used to reform paragraphs to new margin settings.

The find and find and replace commands only search within the margins. The automatic paragraph rejustification that takes place on text replacement may modify the format of text that has been typed with different margin settings and should be used with care if you have typed parts of your text with different margin settings.

The Search Command

ΔR replace or find text

This facility allows you to find the next occurrence of a given word or to replace all the following occurrences of a given word with another word or group of words. The implementation of this command key is from the current cursor position. (To find or replace from the beginning of the text use the Δ↑ command key first to get to the start of the text.)

When the Δ**R** key is pressed Tasword asks you to type the word to be replaced or found. You must type a single word - Tasword will not accept your input if you include spaces.

Press **RETURN** after you have typed the word that is to be replaced or found and Tasword will ask you for the text that the word is to be replaced with. Just press **RETURN** to find the next occurrence of the word you typed. To replace all the following occurences of the word that you specified type the replacement text and press **RETURN**. The replacement text can include spaces but must be no longer than the length of a line.

Tasword will reform each paragraph in which it replaces text according to whether right justification is on or off and to the current margin settings. Use this command with care if you have used different margin settings for different parts of your text.

You can escape from the find and replace at any time by pressing the **RUN STOP** key.

Block Commands

∆**B mark beginning of block**

Blocks of text may be moved or copied from one part of the text file to another. The beginning and end of the block of text must be 'marked' before it can be moved or copied. The **CTRL B** key is used to tell Tasword that the start of the block is the current cursor line. A flashing square will appear on the left of the screen display to indicate the first line of the block.

∆**V mark end of block**

This key is used to mark the last line of a block of text. A flashing square will appear on the right of the screen display to indicate the last line of the block.

∆**M move block of text**

A block of text that has been marked is moved to a new position when the ∆**M** key is pressed. The text is moved to new lines that are created above the line containing the cursor when ∆**M** is pressed.

∆**N copy block of text**

The action of this command key is identical to the move block ∆**M** key described above except that the block of text is copied to a new position rather than moved.

∆**C delete block of text**

A marked block of text is deleted when the **CTRL C** key is pressed.

∆**@ cancel block markers**

This command switches off the block markers if they have been set.

Note: A block must be defined in order to perform a **CTRL M**, **N**, or **C**. A block cannot be copied or moved if the cursor is within the block markers.

Tab Commands

← move cursor to tab stop

This command key moves the cursor right along the line to the next tab stop position. The tab stop positions are marked on the last but one line of the display.

Δ← set tab/reset tab

The **CTRL** ← sign creates a tab stop at the current cursor column position if one doesn't already exist. If a tab stop is already present then it is cancelled. Hence this command toggles tab stops on and off.

ΔX reset tabs

This command key resets all the tab stops to their default positions of every tenth column.

ΔZ clear tabs

The ΔZ command removes all the tab positions that are currently set.

Printer Commands

ΔP page break display On/Off

The Δ**P** command is used to switch the page break display between On and Off. The current status is shown by the 'Paging' message in the bottom line of the display.

When the page break display is On a dashed line appears across the screen to show the page breaks. This shows where one page will end and the next page will begin when the text file is printed.

See pages 31 to 34 for a description of the formatting of printed output.

ΔSPACE u The form feed character

The form feed character is a printer control character as described on page 25.

When the text file is printed the printer will form feed after printing a line containing the form feed character.

If this printer control character is used then subsequent page breaks will not occur at the positions shown by the on-screen page break display. (see page 32)

Δ6 put top line into header

On printing the text file a header and a footer can optionally be printed at the top and bottom of each page (see pages 27, 29 and 32). A header is created by typing it on line one of the text file and then pressing the Δ**6** command key. Subsequent use of the Δ**6** command key will put whatever is in line one of the text file into the header, overwriting any existing header.

ΔT get header

The Δ**T** command key gets the header from memory and inserts it into line one of the text file. The header may be edited and put back using the Δ**6** command.

Printer Commands (Continued)

Δ7 put top line into footer

A footer for printing is defined by typing it on line one of the text file and then pressing this command key.

ΔY get footer

This command gets a copy of the footer from memory and inserts it into line one of the text file.

Both the header and the footer are saved onto tape or disc whenever a text file is saved. If not being used as such then they are useful for storing any short notes or comments concerning your text.

Special Characters

∆**SPACE printer control characters and extra print characters**

The **CTRL SPACE** command allows you to type the printer control characters whose use is described on page 33. The printer control characters appear on the screen as special shapes as shown on the help page.

When **CTRL SPACE** is pressed the cursor becomes an outlined rectangle. This indicates that the next key you press will produce either a printer control character or extra print character. Pressing a lower case letter between **a** and **u** will produce a printer character code. Pressing an upper case letter between **A** and **Z** will produce an extra print character.

If you wish to type a printer control character then make sure **CAPS LOCK** and **SHIFT LOCK** are both off before pressing **CTRL SPACE**.

∆− **Capitals to lower case**

If there is a capital letter at the current position then this command replaces it with the equivalent lower case letter. This command, in conjunction with auto-repeat, is useful if a section of text has inadvertently been typed with **CAPS LOCK** (see page 26) set.

∆+ **lower case to Capitals**

This command replaces a lower case letter at the current cursor position with the equivalent capital letter.

Other Command Keys

∆**RETURN** save/load/merge/print text

This command key is usually used to save, load, and print text files. The following list of options is displayed when ∆**RETURN** is pressed. (The numbers in brackets refer to the page number in this manual on which each option is described.)

Print text file	P	(27)
Save text file	S	(10)
Load text file	L	(10)
Merge text file	M	(11)
Return to text file	R	(26)
Customise program	C	(35)
Save Tasword	T	(9)
Disc Commands	D	(45)
Clear text file	X	(26)

Pressing **R** will take you back to the text file. Pressing **X** will erase all text currently held in the text file.

f5 caps lock

The grey function key marked **f5** toggles Caps Lock on and off. When off the right hand corner of the bottom line displays the word 'normal'. When Caps Lock is on it displays the message 'CAPS LOCK'. When Caps Lock is on all letter keys produce an upper case letter only.

Printing Text

To print part of all of a text file use the Δ**RETURN** command to obtain the main menu shown on page 26. Select the '`Print text file`' option by pressing **P** and confirm your choice by pressing **RETURN**. The print menu will appear on the screen and is reproduced below:

(1)	Start at line:
(last)	Finish at line:
(01)	Number of copies:
(01)	Line spacing:
(C)	Continuous or single sheet C/S:
(N)	Form Feed at page breaks Y/N:
(N)	Print header Y/N:
(N)	Print footer Y/N:
(N)	Print page numbers Y/N:
(T)	at top or bottom T/B:
(M)	at middle or sides M/S:
(001)	start numbering at
(00)	Left margin on printing:
(N)	Form feed after printing Y/N:

When this menu is on the screen just press the **CLR HOME** key at any time to begin printing.

Tasword 64 has a comprehensive set of print options. The first time user is recommended to by-pass these options by just pressing the **CLR HOME** key to print the text file. A description of the print options is given on pages 28-30.

When using Tasword for the first time ensure that the program is correctly set up to send text to your particular printer. Appendix three contains details about how to do this.

Many of the above print options depend on a pre-defined page layout. See page 32 for a description of page layouts and pages 35-36 for the instructions for defining your own page layout.

Printer Terminology

A *form feed* is a special code that is sent to the printer. The printer interprets it as an instruction to move the paper to the beginning of the next page.

The *form length* is the number of lines of the text file printed on each page of paper. In this manual the form length does not include the additional lines printed on each page as a result of the printing of page numbers and footers and headers.

The Print Options

The print menu shown on page 27 consists of a number of options. There is a default answer to each option which is shown in brackets. If any option is answered by just pressing **RETURN** then the default answer is selected. If **CLR HOME** is pressed, in order to jump the remaining options and begin printing, then the default answers are selected for the remaining options.

If a non-default answer is given to any of the options after the first two then these answers become the default options for subsequent print commands while Tasword remains in the computer. Furthermore, if Tasword is saved (page 9) then the current default options are saved as the new default print options. In this way you can create a customised copy of Tasword that has as default the print options that you use most often. (See also program customisation on pages 35-41.)

Start at line

Enter the line number of the line in your text file that you wish the printing to start at. The default is line 1.

Finish at Line

Enter the line number that is to be the last line to be printed. The default is the last line of the text file containing text.

Number of copies

Enter the number of copies of the text file that you wish to be printed. If you are printing more than one copy and you want each copy to begin on a separate sheet then either enter **Y** to respond to the '`form feed after printing`' question below (page 30) or type the inverse u printer control character (pages 23 and 32) into the last line of your text file.

Line spacing

Enter 2 for double line spacing and three for triple line spacing and so on. If you print out text with a line spacing greater than one and you require form feed at page breaks then you will have to redefine the form length (the number of text lines on the page) as the program counts the number of lines of text printed and not the intervening blank lines.

Continuous or Single Sheet

If you are using continuous (i.e. fan fold) stationery then respond by pressing **C**. Press **S** if you are printing onto single sheets.

If you specify single sheet then the program will perform an automatic form feed at each page break and then halt. A message on the screen invites you to feed the next sheet of paper into the printer and to press a key to continue printing.

Form Feed at Page Breaks

This question is asked if continuous stationery is specified in the above option. If you specify that you do want a form feed at the page breaks after printing out a number of lines equal to the form length (page 27) on each page the program will force the printer to do a form feed so that no printing is performed on or near the perforations between the sheets.

If you specify no form feeds at page breaks then the following questions are still relevant as headers, footers, and page numbers are printed, if selected, as a result of forced form feeds.

Print Header

A header is a line of text that can be printed at the top of every page. To define a header use the Δ**6** option described on page 23.

Pressing **Y** for yes in response to this option will cause the header to be printed at the top of each page.

Print Footer

A footer is a line of text that can be printed a the bottom of every page. A footer is defined using the Δ**7** option described on page 24.

Responding **Y** to this option will cause the footer to be printed at the bottom of each page.

Print Page Numbers

Respond **Y** for yes to this option if you require a page number to be printed on each page.

The next three options are only appropriate if you specify that you do require page numbers to be printed.

At Top or Bottom

Use this option to choose whether the page numbers should be printed at the top or the bottom of the printed page. The page numbers are printed above the header or below the footer.

At Middle or Sides

You can choose to have page number printed either in the middle of the page or at the sides. 'Middle' and 'sides' in this context refer to the margin positions as set in the text file when the Δ**RETURN** command was used to leave the text file.

If you specify that page numbers should be printed at the sides then odd numbers will be printed at the right hand side of the page and even numbers will be printed at the left hand side.

Start Numbering At

Enter the number that you require the page numbering to start at. This is useful with large documents which have to be stored on tape in separate parts.

Left Margin On Printing

This margin is separate and distinct from the left margin in the Tasword text file. A left hand margin on printing is a number of spaces that, are sent to the printer at the start of every printed line.

You may, for example, type text that is to be printed on normal width A4 paper. Eighty characters in a normal typeface will fill the width of the paper. In order to obtain a margin at each side of the paper you could set the text file margins at columns 8 and 72 say. This is a perfectly valid approach but a better method, which saves some memory, is to have the left margin at column 1, the right margin at column 64, and to specify a left margin on printing of 8. A disadvantage of this second method is that if you use different sized typefaces then the spaces that are sent to the printer for the left margin may be of differing sizes and the left justification will be lost.

Form Feed After Printing

Answering **Y** for yes to this option gives a final form feed at the end of the printing. The footer and page number are printed at the bottom of the page if selected.

Formatting Output

This section describes how to format your printed output in terms of the layout of each page and the number of lines to be printed on each page. The beginner is recommended to follow the advice given on page 27, and by-pass the print options, until familiar with the other features of the program.

Page Breaks

There are two reasons for utilising page breaks and Tasword has a facility which is appropriate for each:

(1)   When printing onto continuous stationery you may prefer that printing does not take place in the region of the perforations. Similarly, when printing onto single sheet, you will not want to print to the very end (and beyond!) of each sheet.

(2)   If your text is split into distinct parts you may wish each of the separate parts to begin on a new page. This manual is an example of this type of document.

If your text is a continuous document it may be that (1) above is the main consideration and you can use the automatic page break facility. If, on the other hand, your main requirement is that of (2) above, then you will want to force form feeds by typing a special printer control character into your text at the relevant places.

Each of the two ways of obtaining page breaks is described below. It is unwise to try to use both methods in the same document.

(1) Automatic Page Breaks

The print menu (reproduced on page 27) contains a '`form feed at page breaks`' option. If you respond **Y** for yes to this option, or if you have already specified that you are using single sheet, then every time the printer has printed out a number of lines equal to the form length a form feed will be performed.

For example, if the form length is fifty lines, the printer will perform a form feed after printing every fifty lines of the text file.

If you have specified that the footer should be printed, then this will be done before the form feed. The same applies to page numbers that are to be printed at the bottom of the page.

If the page break display is turned on (Δ**P**, see page 23), then a dotted line across the text shows where each page break will occur.

(2) Forced Form Feeds

An alternative to relying on the automatic page breaks described in (1) above is to use forced form feeds. A forced form feed is obtained by typing the ∆**SPACE u** printer control character into your text.

Printer control characters are obtained by pressing ∆**SPACE** and then pressing the appropriate letter key as described on page 25.

When the text file is printed the printer will perform a form feed after printing any line containing the Form Feed control character.

Automatic page breaks will still take place at form-length intervals after a forced form feed but these automatic page breaks will not occur at the positions indicated by the on-screen page break display. It is therefore wise, if you are using forced form feeds, not to rely on subsequent automatic page breaks, but instead to continue to use the Form Feed control character to obtain form feeds at the desired places in your text.

Page Layout

The layout of each page of printed text is as follows:

(1)   The page number, if specified, and if specified to be printed at the top of the page, is first printed. The printer moves down two lines after printing the top page number;

(2)   The header, if specified is printed. The header is a line of text that is printed at the top of every page. The header is defined using the ∆**6** command described on page 23. The printer moves down three lines after printing a header;

(3)   A number of lines of text is then printed. The number of lines of text that are printed is the form length which is set to fifty lines by default;

(4)   If the footer is to be printed the printer moves down three lines and prints the footer;

(5)   If page numbers are being printed at the bottom of the page the printer moves down two lines and prints the page number.

The number of lines of text on a page (the form length) and the number of lines moved by the printer in each of the above are all user selectable via the 'Customise program' option described on page 35.

Printer Control Characters

Tasword helps you make effective use of the capabilities of your printer by providing 20 user definable printer control characters. Each printer control character has a special symbol to represent it in the text file. These can be seen on the help page. These control characters are obtained by first pressing **CTRL SPACE** and then the appropriate letter key.

Each printer control character has a sequence of up to four codes associated with it. This sequence is sent to the printer whenever Tasword comes across a printer control character during printing.

You may, for example, define a printer control character to be the sequence of codes that instructs your printer to print enlarged text (if your printer has this capability). Then you can simply type this printer control character into your text and the text following will be printed in the enlarged form.

Tasword comes with the printer control characters defined as shown on the help page (see page 6) for the Epson FX-80 printer. Some of these codes are valid for other printers.

You can define your own sequences of printer control codes to be associated with the printer control characters by going through the 'Customise program' facility described on page 35.

The part of the help page that lists the printer control characters can be edited (see pages 12 and 38).

The sections of printer manuals that deal with control codes vary in both clarity and terminology. See Appendix 1 (page 42) for an explanation of some of the terminologies used in printer manuals.

Example

The program is provided with the _ character defined to send to the printer the code for a space followed by the Epson sequence of codes that tell the printer to being underlining. The ¯ character is similarly defined to be the terminate underlining sequence of codes followed by a space.

        this is an_example¯of underlining

will be printed as:

        this is an <u>example</u> of underlining

Printing Normal Characters

The ASCII code associated with each normal character is sent by default when the text file is printed.

The 'Customise Program' option (page 35) allows you to define a sequence of up to four codes to be output for any normal character on printing. You may want to do this, for example, in order to print accented characters. You could define the codes associated with a particular character to be the code for a character, followed by the backspace code, followed by the code for an accent. This assumes that your printer has such codes.

Printing Extra Print Characters

A character from the extra character set is normally printed as the corresponding character from the normal character set. The 'Customise Program' option allows you to define a sequence of up to four codes to be output for each character from the extra set.

Program Customisation

TASWORD 64 contains a comprehensive set of options that allow the user to create a version of the program suited to personal requirements and preferences. Whenever the program is saved onto tape it is saved in its currently customised form. You can therefore customise the program, save it onto tape or disc, and subsequently load your own custom-ised program. This obviates the need to customise the program whenever you load it. Keep the original tape or disc as your back-up copy.

It is recommended that you refer to the relevant sections in the following part of this manual whenever you go through the program customisation options.

To customise your TASWORD 64 press the Δ**RETURN** command key while Tasword is running to obtain the main menu shown on page 26. Press **C** to choose the 'Customise Program' option and then press **RETURN** to confirm your choice. Tasword then asks the following sequence of questions:

Define page layout	P
Define normal print characters	N
Define printer control characters	C
Define extra print characters	E
Alter program	A

To select one of the above press the appropriate letter and then press **RETURN** to confirm your selection.

Define Page Layout

This customisation option allows you to define your own page layout and to specify the codes that your printer uses for carriage return, linefeed, and form feed. The TASWORD 64 page layout is described on page 32.

When this customisation option is selected the following sequence of questions is asked by the program:

                (50)   No. text lines per page:
                (03)   Top line no. – header:
                (03)   header – text:
                (03)   text – footer:
                (03)   footer – bottom line no.:
                (13)   Carriage Return:
                (10)   Linefeed:
                (12)   Formfeed:

The numbers in brackets are the current default values held within the program. They are supplied on the tape with the values shown above.

To specify a new value for any of the above parameters type the new value and press **RETURN**. To keep the current default value you can just press **RETURN**. A cursor indicates the question that the program is currently asking.

The first five questions allow you to define your own page layout. The TASWORD 64 page layout is described on page 32.

The last three questions allow you to define the codes that that printer uses for carriage return, linefeed and form feed. Nearly all printers use the codes that are shown in brackets above. Many printers have an internal switch that, if set, will cause the printer to perform a line feed as well as a carriage return on receipt of a carriage return signal. If your printer produces unexpected double line spacing then you can either reset the switch in your printer or specify the code for linefeed to be zero in the above list of questions.

Define Normal Print Characters

This customisation option allows a sequence of up to four codes to be associated with any of the normal characters. When the character is printed it is this sequence of codes that is sent to the printer.

The program is supplied with a single code associated with each normal character. This code is the ASCII code for that character. You may wish to define some other code or sequence of codes for some character in order to, for example, print accented characters as mentioned on page 34, or to define your printer code for a £ sign (see appendix 2 for the printing of £ signs).

When this option is chosen the program prompts you to 'type the character you wish to define a sequence for'. Type the character or press **RETURN** if you have finished, or do not wish to define a sequence.

If you type a letter the program will show the sequence of codes currently associated with that letter and invite you to type in a new sequence of codes. Type up to four sets of numbers, pressing **RETURN** after each number. To terminate the sequence with less than four numbers just press **RETURN**.

If you press **RETURN** to terminate the sequence before entering the first code then the character sequence is unchanged. This allows the code sequence to be viewed and not altered. Entering a zero for the first value will produce a null sequence for that character.

Example

In this example the normal * character will be made to produce a 'plus or minus' ± sign on printing.

Enter the 'define normal print characters' option and type a * in response to the 'type a character you wish to define a sequence for' question. The program will show the 'old' code of sequence of codes associated with the * character and invite you to type in a new sequence of codes.

We wish the printer to print, in place of the *, first a + sign, then to do a backspace (move back a character), and finally to print the underline character _.

The ASCII code for a + sign is 43.

The code for backspace on most printers is 8.

The ASCII code for a _ character is 95.

Type 43, then 8, and then 95, pressing **RETURN** after each. The * character will now be printed as a ± sign.

Define Printer Control Characters

This customisation allows a sequence of up to four codes to be associated with any of the printer control characters. The printer control characters are a set of 20 special symbols as shown on the help page. These are obtained by pressing **CTRL SPACE** and the relevant lower case letter.

The program is supplied with the codes for the letters **a-p** defined to be control code sequences for the Epson FX-80 printer and give the effect described in the help page. Letters **q-t** are defined for the Commodore MPS-801 printer and produce an effect described in the help page. Some of these control codes may be valid for other printers.

The shaded symbol obtained by pressing **CTRL SPACE** and then '**u**' is the form feed character. Whenever this symbol is encountered a form feed character is sent when the line has been printed. The form feed code may be changed using the Customise program option.

To define printer control characters select the letter **C** on the Customise program option and press **RETURN** to confirm your choice. Next press the letter from **a-t** that corresponds to the symbol you wish to define. The existing codes will be displayed and a prompt will appear at the foot of the screen asking for the new codes. Pressing **RETURN** before entering any values leaves the sequence unchanged. If you enter less than four values then the remaining codes are set to zero.

The printer control code sequences are entered as decimal numbers. Appendix 1 indicates how these numbers may be determined from the information given in some printer manuals.

A printer control character occupies a character position in a line of the text file. If the control code sequence does not cause a character to be printed then the justification of the printed text will be lost, as a line containing a single such printer control character will be a character shorter on printing than a line that does not. This effect is avoided by including the code for a space in the sequence of codes. The code for a space is 32.

Define Extra Print Characters

This customisation option allows a sequence of up to three codes to be associated with any of the extra print characters. When the character is printed it is this sequence of codes that is sent to the printer.

The program is supplied with a single code associated with each extra print character. This code is the ASCII code corresponding to the normal character that is obtained by pressing the same key.

When this option is chosen the program prompts you to define a sequence of codes in exactly the same way as for the 'define normal print characters' option described on page 37.

Alter Program

This customisation option allows the user to make various modifications to the program. When this part of the program is entered by responding **Y** for yes to the 'alter program' option (see page 35) the following sequence of questions is asked:

(01)	Text colour:
(11)	Background colour:
(06)	Border colour 1:
(05)	Border colour 2:
(00)	Cursor type:
(Y)	Cursor flashing? Y/N:
(05)	Printer device no.:
(08)	Storage device no.:

The values shown in brackets are the current program values. Just press **RETURN** to keep the current value.

Text Colour

This is the colour, or brightness on monochrome monitors, of the text in the text file. The program is supplied with the value 1 which is white. Consult your Commodore manual for details of the other colours available.

Background Colour

This is the background colour of the text. The program is supplied with the value 11 which is dark grey.

Border Colour 1

This specifies the normal border colour and is set to the value 6 on the original program. This corresponds to blue.

Border Colour 2

The border colour changes when some control key functions are selected. This indicates that the program is now processing the command. When the program has finished the border colour reverts to its original colour to indicate that you can now continue. This option allows the second border colour to be changed.

Cursor Type

There are 4 types of cursor available numbered 0-3. These are:

0: A thin horizontal bar on the base of the character
1: A thick horizontal bar on the base of the character
2: A small square on the right hand side of the character
3: A rectangular block that covers nearly all a character

Cursor Flashing

If Yes then the cursor will flash on and off, otherwise it is constantly on. This also controls the block markers and causes them to either flash or stay on.

Printer Device No.

This allows the text file to be printed to different printer types. Some examples are:

4 or 5   Commodore printers e.g. MPS-801
6   Commodore printer plotter

If this value is changed to zero then output is sent via the user port to a centronics printer. If you wish to use a centronics type printer then you will need an adaptor cable that plugs into the user port and the printer. Tasword already contains all the necessary software to drive the centronics output.

(See Appendix three for details on configuring Tasword to print using different types of printer.)

Storage Device No.

This allows the storage device currently in use. These may be the value 1 for using cassette tape or 8, 9, 10, 11 for using a disc drive. When this number is set all subsequent actions involving loading, saving, merging etc are done with this device. Note that if cassette tape is selected then you will be unable to access a disc drive without first changing this value.

Appendix 1 - Determining Printer Control Codes

The inverse letter typed via the ∆**SPACE** command are the TASWORD printer control characters. These characters are placed in the text to control the printer. Each printer control character can be defined to be a list of up to five codes. These codes must be entered in the 'define printer control characters' option (see page 38) as decimal numbers. This can lead to confusion as printer manuals use a number of methods for specifying control code sequences.

Many printer control code sequences begin with **ESC**. The decimal code for **ESC** is 27.

Some printer manuals specify control code sequences in terms of characters. For example, the control code sequence to turn emphasised printing on may be given as:

                    ESC E

The decimal code for **ESC** is 27. the decimal (ASCII) code for E is 69. Therefore, to enter the above control code sequence as decimal numbers in the 'define printer control characters' option enter the two decimal numbers.

                    27 69

You can determine the ASCII code for a character by going into Basic and using the **ASC** function. Type, for example:

                PRINT ASC ("E")

and the code for **E** will be printed.

Some printer manuals give control code sequences in terms of hexadecimal numbers. The **ESC E** control code sequence used in the above example is specified in a number of ways in hexadecimal, including the following:

                    ESC 45h

                    1Bh 45h

The h specifies that the number is in hexadecimal. Not all manuals use this convention. To determine the decimal form of a hexadecimal number go into Basic and use the **&H** function. For example:

                    PRINT &H1B

will print 27 to show that the hexadecimal number 1B is decimal 27.

Similarly:

```
PRINT &H45
```

will print 69, which is the decimal number corresponding to hex 45.

Some printer manuals list control codes in a square table with sets of binary digits to the left and along the top. To find the decimal code corresponding to an entry in the table read up from the entry to find the most significant (first) four digits and then read left from the entry to determine the four least (last) significant digits. Then use the Basic &x function to determine the decimal number corresponding to the eight bit binary number that you have formed. This is demonstrated in the example below in which the decimal code for G is determined from such a table:

Example

```
                    0 0 0 0 0 0 0 0 1 1 1 1 1 1 1 1
                    0 0 0 0 1 1 1 1 0 0 0 0 1 1 1 1
                    0 0 1 1 0 0 1 1 0 0 1 1 0 0 1 1
                    0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1
          0 0 0 0            .
          0 0 0 1            .
          0 0 1 0            .
          0 0 1 1            .
          0 1 0 0            .
          0 1 0 1            .
          0 1 1 0             .
          0 1 1 1 . . . . . . . . G
          1 0 0 0
          1 0 0 1
          1 0 1 0
          1 0 1 1
          1 1 0 0
          1 1 0 1
          1 1 1 0
          1 1 1 1
```

Therefore the binary code for G is 01000111. In Basic execute:

```
PRINT &X01000111
```

to determine that the decimal code for G is 71.

Appendix 2 - Printing £ Signs

The pound sterling sign is not a standard ASCII symbol. Different printers use a variety of codes for the £ sign. The common ones are 35, 96, and 129.

It is often necessary to alter a switch inside the printer. This normally selects a £ sign instead of a hash sign.

TASWORD is supplied with the £ sign defined to be sent as a 35 to the printer. You can use the 'define normal print characters' option described on page 37 to change the code sent for a £ sign to, for example, 96.

Appendix 3 - Important notes for Centronics and CBM printers

When you first load Tasword a number of modifications may be required before you can begin printing. This is because Tasword supports both centronics and Commodore printers and the program may need configuring to suite your particular printer's requirements.

Firstly the printer device no. (see page 41) must be selected. The program is supplied with the value 4 which is the device no. of most Commodore printers. If you are using a Commodore printer check to see which device number it is given. This is printed on the back of your printer and is in the accompanying manual. Some Commodore printers have a switch which allows you to set the device number manually. Make sure that the number of your Commodore printer matches the printer device no. in Tasword.

If you are using a centronics type printer then the printer device no. must be set to zero. Tasword will then send all its output to the user port. A special interface cable will be needed to send data from the Commodore to the printer.

On some printers an automatic linefeed occurs with a carriage return. This is the case with the Commodore MPS-801 printer. If this is the case with your printer then set the linefeed character value to zero in the 'Customise program option'. Otherwise a blank line will be printed between each line of text.

Some printers (e.g. Commodore MPS-801) are unable to perform a form feed. If this is the case special attention must be made to the page layout to ensure text is not printed on or near the perforations of continuous feed stationery.

Appendix 4 - Using Disc Drives with Tasword

By changing the storage device no. in the Customise program option Tasword can access up to the maximum of four disc drives that the Commodore computer can support. Whenever a command is performed that requires a file name to be typed in, Tasword will display the disc directory. For example, if you wish to load a text file from disc then after the 'Load text file' option has been selected the computer will display the message:

SEARCHING FOR $
LOADING

This indicates that Tasword is looking for, and found the disc directory. Next the name of the disc is displayed along with the details of the first eight files on the disc. The number on the left corresponds to how many sectors on the disc that particular file takes up.

If there are more than eight files on the disc then pressing the space bar causes the next eight files to be displayed. This continues until all the file names have been displayed. If you press the **RUN STOP** key then Tasword continues with its original instruction, e.g. loading, saving, etc.

Also you can carry out all the normal disc drive functions from Tasword such as formatting discs, scratching files, etc.

To do this select the 'Disc commands' option from the main menu. A second menu is then displayed which allows you to select one of the disc commands. Again, any command requiring a file name will prompt Tasword to display the disc directory. For full details of your Commodore disc drive consult the manual that accompanies it.

ADDENDUM - Printing through the User Port

This program is set up for Commodore Printers using device number 5 and auto line feed. The device number and line feed code can be changed using the CUSTOMISE program option from the main menu.

To drive a 'normal' printer (eg Epson) through the expansion port, set the device number to 0. Then alter the line feed code (Alter program option) and normal character codes to those shown in your printer manual. All of this can be done through the customise program option. SAVE your customised version! In case of difficulty contact the Tasman customer support desk on Leeds (0532) 438301.